

ABSTRACT OF THE DISCLOSURE

A process is disclosed for purifying a hydrofluoropropane of undesirable C₂-C₄ olefinic and C₁-C₄ saturated chlorinated impurities, comprising the steps of: contacting a first mixture of hydrofluoropropane, olefinic impurity and saturated chlorinated impurity with hydrogen and hydrogen fluoride concurrently in the presence of a bifunctional catalyst, for example an alloy of gold and palladium supported on carbon, capable of catalyzing hydrogenation and fluorination. During the contacting step, olefinic impurity is converted to saturated hydrogenated derivative and/or saturated hydrofluorinated derivativ, and saturated chlorinated impurity is converted to a saturated hydrodechlorinated derivative and/or saturated fluorinated derivative. The hydrofluoropropane thus formed is substantially free of both the olefinic and saturated chlorinated impurities and may be used as obtained or subject to further purification steps such as distillation to remove the process derivatives (e.g., hydrogenation, hydrodechlorination and hydrofluorination derivatives) from the hydrofluoropropane.